



## DEFENSE BUSINESS BOARD

### Report to the Secretary of Defense

## Re-examining Best Practices for DoD Fuel Acquisition

Report FY11-06

- Recommendations to help reduce the Department's exposure to fuel price volatility
-

| Report Documentation Page  |                                    |                                     | Form Approved<br>OMB No. 0704-0188                        |                                  |                                 |
|--|------------------------------------|-------------------------------------|---|----------------------------------|---------------------------------|
| Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. |                                    |                                     |   |                                  |                                 |
| 1. REPORT DATE<br><b>2011</b>  | 2. REPORT TYPE                     |                                     | 3. DATES COVERED<br><b>00-00-2011 to 00-00-2011</b>       |                                  |                                 |
| 4. TITLE AND SUBTITLE<br><b>Report To The Secretary Of Defense - Re-Examining Best Practices For DoD Fuel Acquisition</b>  |                                    |                                     | 5a. CONTRACT NUMBER                                       |                                  |                                 |
|  |                                    |                                     | 5b. GRANT NUMBER  |                                  |                                 |
|  |                                    |                                     | 5c. PROGRAM ELEMENT NUMBER                                |                                  |                                 |
| 6. AUTHOR(S)   |                                    |                                     | 5d. PROJECT NUMBER  |                                  |                                 |
|  |                                    |                                     | 5e. TASK NUMBER   |                                  |                                 |
|  |                                    |                                     | 5f. WORK UNIT NUMBER                                      |                                  |                                 |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br><b>Defense Science Board, The Pentagon, Washington, DC, 20310</b>  |                                    |                                     | 8. PERFORMING ORGANIZATION REPORT NUMBER                  |                                  |                                 |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)  |                                    |                                     | 10. SPONSOR/MONITOR'S ACRONYM(S)                          |                                  |                                 |
|  |                                    |                                     | 11. SPONSOR/MONITOR'S REPORT NUMBER(S)                    |                                  |                                 |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT<br><b>Approved for public release; distribution unlimited</b>  |                                    |                                     |   |                                  |                                 |
| 13. SUPPLEMENTARY NOTES  |                                    |                                     |   |                                  |                                 |
| 14. ABSTRACT   |                                    |                                     |   |                                  |                                 |
| 15. SUBJECT TERMS  |                                    |                                     |   |                                  |                                 |
| 16. SECURITY CLASSIFICATION OF:  |                                    |                                     | 17. LIMITATION OF ABSTRACT<br><b>Same as Report (SAR)</b> | 18. NUMBER OF PAGES<br><b>43</b> | 19a. NAME OF RESPONSIBLE PERSON |
| a. REPORT<br><b>unclassified</b>   | b. ABSTRACT<br><b>unclassified</b> | c. THIS PAGE<br><b>unclassified</b> |   |                                  |                                 |



## Re-examining Best Practices for DoD Fuel Acquisition

### TASK

In 2010, the Department of Defense (DoD) spent more than \$13 billion on petroleum fuel products. This represents approximately two percent of the Department's budget. The Department relies upon a market reserve fund, or working capital fund, to buy fuel based on spot market prices. As a result, the Department does not exercise price protection techniques for its future fuel purchases. The price of fuel has fluctuated from \$35 per barrel in 2004 to \$140 per barrel in 2007. Given these broad market fluctuations, DoD may be missing cost saving opportunities by not utilizing management tools to protect future prices and reduce risk.

In an effort to identify private sector best business practices to purchase large fuel volumes, the Chairman of the Defense Business Board (hereafter referred to as "the Board") created the Task Group on Re-examining Best Practices for DoD Fuel Acquisition. This is a follow-up to a 2004 Board study that reviewed fuel hedging and examined potential opportunities to help reduce the Department's exposure to fuel price volatility.

In 2004, the Task Group reviewed whether fuel hedging techniques employed in the private and public sectors could be applicable and valuable to DoD. This study was designed to align with the decisions regarding fuel hedging outlined in DoD's Program Budget Decision 602, Fuel Inflation, from December 30, 2002. A copy of the 2004 final report may be found online at <http://dbb.defense.gov/pdf/FuelHedging-03-2004.pdf>.

In this 2011 study, in order to provide applicable and valuable deliverables to DoD, the Task Group evaluated large volume fuel purchasing processes used by the private sector and public entities, including sovereign nations as well as DoD. The Task Group's deliverables included: (1) an overview of DoD's fuel purchasing practices; (2) an overview of the Department's historical practices of fuel hedging; (3) a review of best business practices and processes for effective fuel hedging; (4) a description of the fuel hedging options available to DoD; (5) a description of key risks and opportunities of a fuel hedging program; and

## **Defense Business Board**

(6) a summary recommendation that includes identifying the significant management initiatives and controls required for implementation and execution, if applicable. A copy of the Terms of Reference outlining the scope and deliverables for the Task Group can be found at **Tab A**.

The Task Group's Co-Chairs were Denis Bovin and John O'Connor. The other Task Group members were Owsley Brown, Mel Immergut, Lon Levin, and Robert Stein. Colonel Jeffery Kelley, USA, served as the Military Assistant and Ms. Catherine Whittington served as the Board's Staff Analyst.

## **PROCESS**

The Task Group initially reviewed the Board's 2004 report where the Board did not recommend using financial instruments, such as derivatives, to engage in fuel price protection in commercial markets because this option was assumed to be politically infeasible. However, the Board recommended that DoD create an internal government price protection mechanism by pairing exposure to crude price fluctuation between the Department of the Interior's Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE), then known as the Minerals Management Service (MMS), with expenditures from significant government fuel consumers, such as DoD. This approach was expected to act as an intra-governmental program to protect against higher fuel costs as well as to provide greater price stability. However, these recommendations were never implemented.

The Task Group also reviewed and compared current fuel acquisition strategies in DoD as well as the private and public sectors. The Task Group members met with senior leaders of the Defense Logistics Agency (DLA) in order to explore and understand current fuel purchasing alternatives. Furthermore, members interviewed private sector executives in the airline, financial investment, agribusiness, and global energy industries. The Task Group also studied power utility and energy exploration and production companies, as well as sovereign states, all of whose fuel costs or oil revenues are critical enterprise risks. The Task Group analyzed their actions and strategies to determine the applicability and relevance to the Department.

The Task Group's draft findings and recommendations were presented to the Board for deliberation at the July 21, 2011 quarterly Board meeting where the Board voted to approve the recommendations. See **Tab B** for a copy of the brief presented to the Board.

## FINDINGS

The Task Group observed that DoD buys fuel at the current market price. DLA also maintains a working capital fund, which protects against inflation and market fluctuation. Through its working capital fund and reserves, DLA stabilizes the price for its internal DoD customers. From the DoD customer's perspective, the price is budgeted throughout the fiscal year. The Department uses the working capital fund as "self-insurance" when prices fluctuate. Until the mid-2000s, this model worked reasonably well. However, due to the energy market's extreme volatility over the last decade, DoD and Congress had to take extraordinary actions. Congress has had to infuse substantial amounts of cash into the working capital fund through supplemental appropriations. As a result, DoD customers experienced out-of-cycle rate increases (see **Appendix I** and **II** in **Tab B** for further information). This management strategy is inconsistent with private sector best practices.

The Task Group observed that since its previous report, best practices among energy producers and consumers have evolved to include widespread use of risk management strategies. In the current environment of highly volatile energy prices, not having a management strategy that matches future fuel cost to an operating budget exposes any large purchaser of fuel to a high degree of risk from unbounded fuel price increases.

Through its research, the Task Group observed that airline, power utility, and energy exploration and production companies, as well as nations, have remained active managers of fuel price risk and have used multiple approaches to protect against price increases. For example, the United Kingdom, France, and Israel actively manage defense fuel price risk. These countries practice price protection in order to neutralize risk, reduce volatility, stabilize their budget, insure against disaster, protect their revenue and expenditures, and facilitate fiscal change. These examples

demonstrate significant precedent to the use of fuel price protection in both the public and private sectors. The Task Group observed that in the private sector, several major commercial airlines, for example, manage risk by aggressively monitoring relevant metrics related to the frequently traveled air routes and determining seat prices based upon the cost of fuel along those routes.

If DoD used current best practices to manage fuel price protection, uncertainty and risk related to future fuel prices would be reduced. Additionally, the need for supplemental funding to cover unanticipated price increases could be reduced. Fuel price stability would contribute to more effective budget planning and a more predictable execution of the budget. Deliberate management of fuel prices would also discourage and reduce disruptions to non-fuel programs whereby unanticipated requirements for funds to pay higher-than-expected fuel bills are taken from other programs.

The Task Group observed that DoD has the authority to exercise greater control over energy price risk yet lacks a plan. With an effective strategy and plan, the Department could reduce its energy price risk using a range of immediately executable alternatives.

## **OPTIONS CONSIDERED**

In reviewing the current DoD approach to fuel price protection and comparing it to commercial best practices, the Task Group developed the following five distinct management options.

1. Continue the current DLA model.
2. Directly utilize financial instruments to protect against price volatility.
3. Begin to utilize longer dated contracts and/or a “capped” price program for up to 10 percent of DoD’s fuel needs.
4. Construct a Request for Proposal (RFP) for a fuel price protection advisor or management services provider.

## **Defense Business Board**

5. Use an intra-governmental price protection arrangement for up to 10 percent of DoD's fuel needs.

The Task Group concluded that continuing the current DLA model, without any modifications, would be inconsistent with public and private sector best practices and would miss the opportunity to reduce risk and gain predictability. Furthermore, the Task Group does not recommend that DoD utilize fuel price protection techniques that involve market-based financial instruments, such as derivatives, because DLA and senior DoD officials have very little experience and a limited desire to use these techniques. Furthermore, Congress may react adversely if these fuel price protection techniques do not provide adequate protection.

## **RECOMMENDATIONS**

Based on the findings above, the Board offers the following recommendations to improve the Department's fuel acquisition system. The Department should implement three low-risk price protection techniques.

1. DLA should request fuel price quotes from suppliers both with and without a "price adjustment" feature.
  - a. A quote with this feature would contain a base price.
  - b. It would also contain an economic adjustment in favor of the supplier if prices escalate from the base price (e.g., DoD would pay up to 5 percent more from the base price if prices were to rise) as well as an adjustment in favor of the Department if prices were to fall (e.g., DoD would get the benefit of prices decreasing to perhaps 15 percent from the base price).
2. The Department should solicit proposals for Fuel Price Risk Management services.
  - a. DoD should provide DLA with the necessary expertise to have a full scope program that is designed by subject matter experts.



## **Defense Business Board**

- b. DoD should establish metrics and criteria to manage fuel price exposure. Multiple private sector firms provide these services and would be prepared to compete for an advisory or management role to help meet these criteria.
- 3. DoD should revisit the possibility of an intra-governmental price stability agreement with the BOEMRE.
  - a. The BOEMRE generates approximately \$4 billion per year in revenue through leasing both off-shore and on-shore energy resources.
  - b. Pricing for these resources fluctuate in direct proportion to indexed fuel prices.
  - c. The Office of Management and Budget could manage this agreement during budget execution by transferring funds between the Departments of the Interior and Defense, depending on which Department benefits from the unanticipated price increases.
  - d. The transfers should be done using a formula that is agreed to beforehand and made known to Congress, so that there is no possibility of using the price protection approach to change the real resources available to either Department.
  - e. This “non-market” approach should allow DoD to realize many of the benefits of price protection. At the same time, intra-governmental price protection should avoid some practical and political disadvantages.

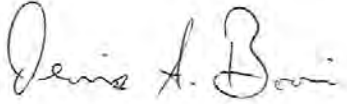
## **CONCLUSION**

The Board recognizes the imperative of reducing DoD’s exposure to fuel price volatility. The Department can reduce its energy price risk using the recommendations detailed above, possibly beginning with an experimental pilot program. If implemented, these recommendations will help improve the operation and effectiveness of the fuel acquisition

## Defense Business Board

process. If the Department implements the preceding recommendations, it should be able to achieve significant budget savings as well as be able to make procedural or organizational changes that will yield long-term operational efficiencies. As a result, the Department will be better able to sustain its current force structure levels and to continue the critical modernization of military capabilities.

Respectfully submitted,



Denis A. Bovin  
Task Group Co-Chair



John O'Connor  
Task Group Co-Chair

THIS PAGE INTENTIONALLY BLANK

TAB A

CHAIRMAN, DEFENSE BUSINESS BOARD  
TERMS OF REFERENCE –  
“ENERGY ACQUISITION – FUEL HEDGING FOR  
THE DEPARTMENT OF DEFENSE”

THIS PAGE INTENTIONALLY BLANK



DEFENSE  
BUSINESS  
BOARD

DEFENSE BUSINESS BOARD  
1155 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1155

7 January 2011

MEMORANDUM FOR DENIS BOVIN AND JOHN O'CONNOR

SUBJECT: Terms of Reference – “Energy Acquisition - Fuel Hedging for the Department of Defense”

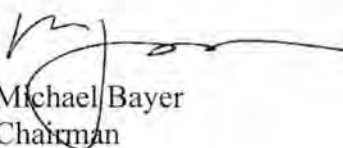
You are requested to lead the Defense Business Board's “Fuel Hedging Task Group” which will reexamine potential ways to reduce the Department's exposure to fuel price volatility, including hedging in commercial markets. Use the previous DBB study on fuel hedging (Report FY03-8) to analyze the impacts that would have occurred if the recommendations had been implemented. The study should examine private sector best business practices used in managing large volume fuel purchasing in support of the decision regarding fuel hedging contained in PBD 602, Fuel Inflation, dated December 30, 2002. The recommendations of the Task Group should focus on whether fuel hedging techniques employed in the private and public sectors can be both applicable and valuable to the Department of Defense.

The Task Group should reevaluate both private sector best practices and current DoD fuel purchasing processes in order to provide the following deliverables:

1. Overview of the Department's fuel purchasing practices;
2. Overview of the Department's historical practices of fuel hedging;
3. Review of best business practices and processes for effective fuel hedging;
4. Description of the fuel hedging options available to the Department of Defense;
5. Description of key risks and opportunities of a fuel hedging program; and
6. A summary recommendation including identification of the significant management initiatives and controls required for implementation and execution if applicable.

The Task Group will consist of Denis Bovin and John O'Connor as Co-Chairmen and assisted by Mel Immergut, Lon Levin, Owsley Brown and Robert Stein (Red Team Leader). Colonel Jeff Kelley, USA, will serve as the Task Group Secretariat Representative. I request that you present your findings and draft recommendations to the Board for deliberation at the April 2011 quarterly Board meeting.

As a subcommittee of the DBB, and pursuant to the Federal Advisory Committee Act of 1972 and the Government in the Sunshine Act of 1976, this Task Group shall not work independently of the DBB's charter, and shall report its recommendations to the full Board for public deliberation. The Task Group does not have the authority to make decisions on behalf of the chartered Board, nor can its members report directly to any federal officer or employee who is not also a Board member. This Task Group will avoid discussing “particular matters” within the meaning of title 18, U.S. Code, section 208.

  
Michael Bayer  
Chairman



THIS PAGE INTENTIONALLY BLANK

TAB B

FINDINGS AND RECOMMENDATIONS  
PRESENTED TO THE BOARD  
ON JULY 21, 2011



THIS PAGE INTENTIONALLY BLANK

DEFENSE BUSINESS BOARD



# **Re-examining Best Practices for DoD Fuel Acquisition**

Task Group

July 21, 2011

# Task Group Overview

## **Terms of Reference:**

- Re-examine potential ways to reduce the Department's exposure to fuel price volatility
- Examine private and public sector best business practices used in managing large volume fuel purchasing

## **Deliverables:**

- Overview of the Department's fuel purchasing practices and of the Department's historical practices of reducing volatility
- Review of best public and private sector practices and processes for effective fuel acquisition

## **Task Group Members:**

- Mr. Denis Bovin (Co-Chair), Mr. John O'Connor (Co-Chair), Mr. Owsley Brown, Mr. Mel Immergut, and Mr. Lon Levin

## **DBB Military Assistant:**

- COL Jeffrey P. Kelley, USA

## **DBB Staff Analyst:**

- Ms. Catherine Whittington

# **I. Executive Summary**

# Executive Summary

- Public and private sector best practice is to actively manage energy price risk.
  - Best practice has become separating physical requirements for fuel from financial elements.
- The Department of Defense's strategy is to buy fuel at whatever current prices demand and maintain a market reserve fund against fluctuation. This is not consistent with how many other large fuel users act.
- DoD has the authority to exercise greater control over energy price risk.
- DoD could reduce its energy price risk using a range of immediately executable alternatives.

## **II. Energy Acquisition – Review of Previous Analyses**

# Energy Acquisition – Review of Previous Analyses

- Task Group members met with the senior leaders of the Defense Logistics Agency to explore current fuel purchasing alternatives.
  - DLA oversees combat logistics, acquisition, and technical services.
- In 2004, the Defense Business Board did not recommend using financial instruments (derivatives) to engage in fuel price protection in commercial markets. The Board concluded that it was not politically feasible.
- However, the Board recommended creating an internal government price protection by pairing exposure to crude price fluctuation between the former Minerals Management Service in the Department of the Interior (the “supplier”), with expenditures from significant government fuel consumers, such as DoD (the “consumer”).
- This approach could act as an intra-governmental program to protect against higher fuel costs and provide greater price stability and budgetary certainty to DoD. However, this was never implemented.

# Energy Acquisition – Review of Previous Analyses (Continued)

- DLA's current model provides a DoD-wide reserve fund (the "working capital fund") against market fluctuation. DLA stabilizes the price for its internal DoD customers through its working capital fund and reserves. From the DoD customer's perspective, the price is budgeted throughout the fiscal year. The working capital fund is used if prices increase, thereby acting as "self-insurance."
- Until the mid-2000s, this model worked reasonably well. However, due to the extreme volatility in the energy market over the past decade, it was necessary for DoD and Congress to take extraordinary actions.
  - Congress has had to make substantial direct cash infusions through supplemental appropriations. As a result, DoD customers experienced out-of-cycle rate increases (see **Appendix I** and **II**).



# **III. Energy Acquisition – Current Public and Private Sector Best Practices**

# Energy Acquisition – Current Public and Private Sector Best Practices

- Since the 2004 DBB Task Group report, best practices among both energy producers and consumers have evolved to include widespread use of risk management strategies.
- Due to the high volatility in today's energy prices, to choose not to match future fuel cost to the budget and be at risk for unbounded fuel price increases is to choose to accept a much higher degree of price risk.
- Members of the Task Group interviewed:
  - Allen Andreas, Retired Chairman & CEO of Archer Daniels Midland
  - Marc Lipschultz, KKR Partner, Global Energy and Infrastructure
  - Frank Sica, Partner, Tailwind Capital, and Director, Jet Blue Airways
  - JP Morgan Global Commodities Group
  - Morgan Stanley Global Commodities Group
- The following summaries demonstrate how entities, similarly situated to the Department of Defense, handle energy acquisition.

# Energy Acquisition – Current Public and Private Sector Best Practices (Continued)

THE TASK GROUP FOCUSED ON FOUR CASES WHERE FUEL COST OR OIL REVENUE ARE CRITICAL ENTERPRISE RISKS.

- AIRLINES have remained active managers of fuel price risk and users of multiple approaches to protect against price increases since the 2004 DBB study.
  - A February 2010 Survey of US domestic airlines showed 35% of total budgeted cost was fixed for 2010 and 22% of 2011 budgeted cost was fixed or hedged.
- POWER UTILITIES, since the 2004 DBB study, have become active managers of fuel price risk.
  - Similar goals, metrics, and constituents to DoD.
  - By April 2009, 83% of all US public utilities employed active fuel cost risk management.
  - These utilities targeted between 30% and 60% of the following year's budgeted total cost to be fixed and typically built up a portfolio of future purchases several years forward in decreasing percentages of total budgeted cost.
- ENERGY EXPLORATION AND PRODUCTION (E&P) companies continue to expand their use of price protection strategies as volatility and market capacity have increased.
  - A May 2010 JP Morgan survey of North American E&P Companies showed a median price protected percentage of production at 55.8% of oil production and 34.7% of 2011 budgeted oil production.
- SOVEREIGN STATES, which are significant energy producers, have also become active risk managers.
  - UK, France, and Israel all actively manage defense fuel price risk.
  - The following slides illuminate some of the decision criteria sovereign states have considered in developing price protection strategies.

# Energy Acquisition – Current Public and Private Sector Best Practices (Continued)

## RISK MANAGEMENT THROUGH HEDGING

### What Is Risk Management?

Firm Value Probability Distribution  
With and Without Risk Management



#### Tactical Risk Management

- Market determined and dynamic. May be opportunistic.
- Short term (up to 1 year forward).
- Strategies are often physical-market related.
- Various instruments used depending on risk profile, market levels and prices expectations.

#### Strategic Risk Management

- Driven by corporate, planned strategies (not opportunistic).
- Medium to long term (minimum 1 year budget cycle). Typically large scale and long tenure.
- Potentially affects timing and structure of cash flows.
- Generic instruments and usually over-the-counter. Not solely market determined.

### Oil Price Evolution

ICE Brent Crude Oil

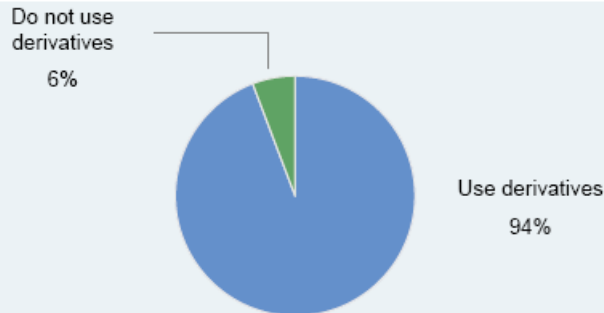
ICE Brent front month vs. historic forwards  
\$/bbl



# Energy Acquisition – Current Public and Private Sector Best Practices (Continued)

Firms are increasingly using financial instruments to protect against financial risks

## Current usage of derivatives

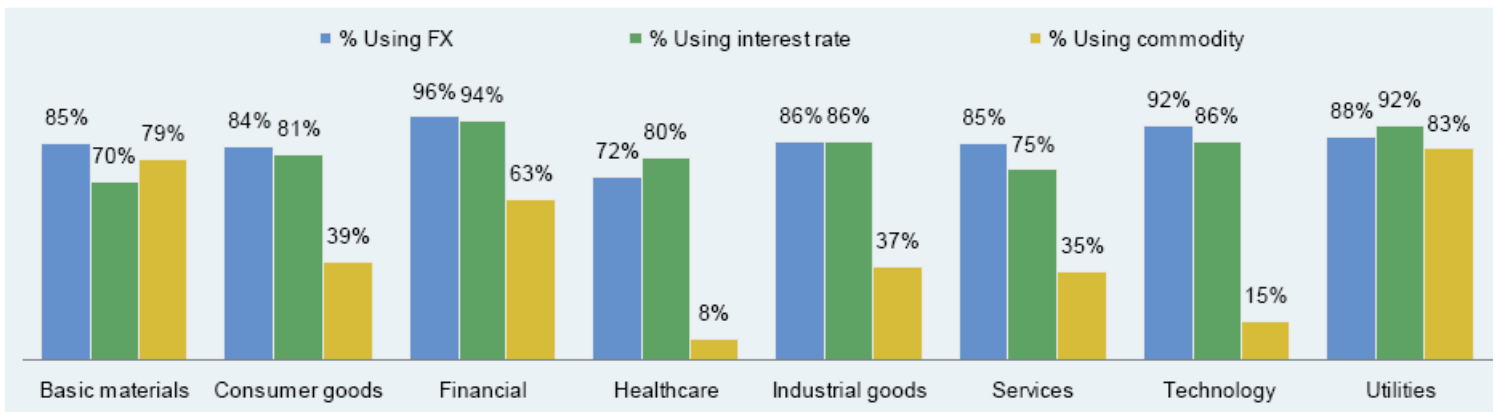


Source: 2009 ISDA survey for Global Fortune 500 companies

## Commentary

- Historically, a significant number of large companies have been utilizing financial instruments for risk management purposes
- Based on an ISDA survey conducted in 2009, 94% of top large companies currently use derivatives (up from 92% in 2003)
- Over the course of the last 5 years, the total outstanding notional amount has increased significantly
- Mix from swaps to options has increased of late with a drop in option volatility

## Current financial instruments usage by the world's largest companies



Source: ISDA news release published on April 23, 2009



# Energy Acquisition – Current Public and Private Sector Best Practices (Continued)

## Why Sovereigns Protect Against Commodity Price Risk

Governments undertake commodity price protection programs for a number of reasons. The foremost rationales for government risk management are:

**Risk  
Neutralization:**  
*Reducing  
volatility*

**Budget  
Stabilization:**  
*Greater certainty  
for planning*

**Externalization of  
Risk Through  
Financial Market  
Mechanisms**

**Revenue or  
Expenditure  
Protection**

**Upfront Cashflow  
Realization to  
Facilitate Fiscal  
Change**

**Disaster  
Insurance**

- Financial instruments can be used to achieve these goals.
- In general, governments have tended to prefer options-based strategies (financial derivatives) as they are likened to insurance policies and can be used to:

### **Cap Expenditure (Commodity Consumers)**

Limit expenditure against upward movements in prices. This creates a cap for expenses (or a portion of them) and enables the continued participation in downward price movements.

### **Put a Floor on Revenues (Commodity Producers)**

Put a floor on export (or other) revenues. This allows the government to be certain of a minimum revenue stream for the budget while allowing the government to continue to benefit from higher commodity prices.

These strategies allow governments to have a clear, transparent budgeted cost of the protection that they purchase. The protection is tailored to the needs of the government and its risk profile, which can be discussed and analyzed in detail to ensure a suitable strategy is identified.



# Energy Acquisition – Current Public and Private Sector Best Practices (Continued)

## “Missing Out”

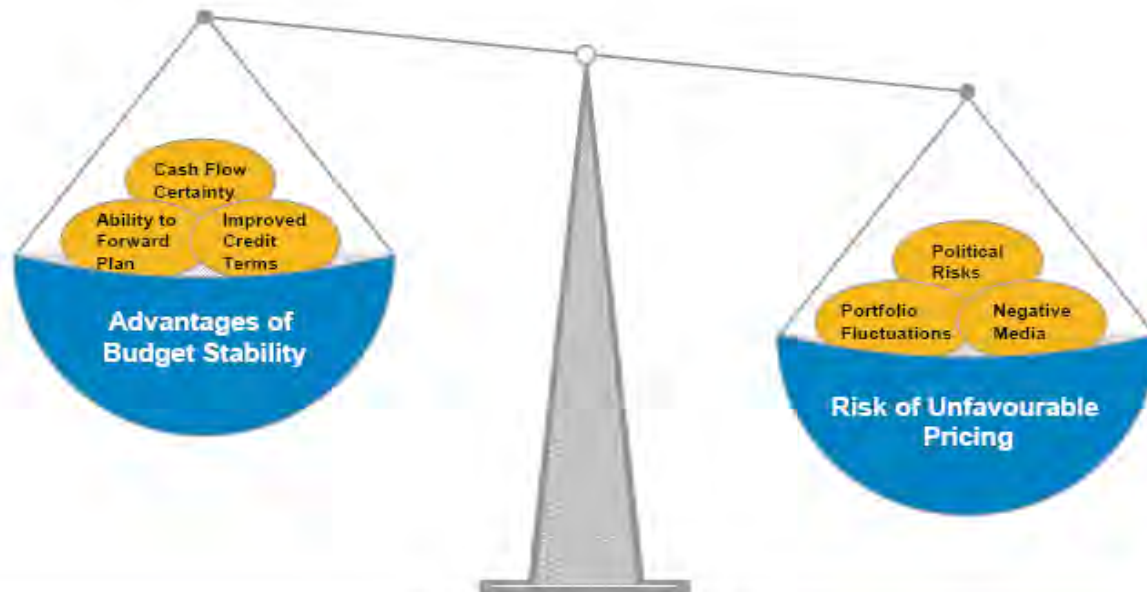
Advantages of using price protection techniques versus being exposed to market volatility

### Budget stability versus potential for periods of poor hedge portfolio performance

The key concern that most governments express relates to public perception that they may be “missing out” on higher revenues/lower costs, should commodity prices move unfavorably.

The primary advantages of implementing a systematic price protection program include:

- Future cash flow certainty which allows governments to plan
- Improved credit terms and a lower cost of borrowing on international markets





## **IV. Energy Price Protection Considerations for DoD**



# Energy Price Protection Considerations for DoD

## Objectives of Using Price Protection Techniques

### **Commercial Sector**

- Mitigate cash flow volatility
- Insure against financial distress
- Reduce earnings volatility
- Minimize long-term fuel expense
- Facilitate improved management planning
- Create value through effective trading

### **DoD (prospective)**

- Reduce budgetary uncertainty (resulting from price volatility)
- Reduce disruptions to non-fuel programs caused by unanticipated requirements for funds to pay higher-than-expected fuel bills
- Reduce potential political liability related to additional funding requests to cover higher-than-expected fuel prices

Note: Foreign DoD Perspective:

Over budget fuel prices cause reductions of other expenditures on capabilities or readiness

# Energy Price Protection Considerations for DoD (Continued)

## Considerations Related to Fuel Price Protection for DoD

### Pros

- Uncertainty/risk related to future fuel prices can be reduced.
- The need for supplemental funding to cover unanticipated price increases can be reduced.
- Fuel price stability will contribute to more effective budget planning, more predictable budget execution, and will discourage disruptive behavior, such as the tendency to “low ball” projected fuel prices in order to include more non-fuel programs in the budget.
- There is significant precedent to use fuel price protection in both the public and private sectors. Heavy fuel users, large municipalities, and transportation authorities commonly use these techniques.

# Energy Price Protection Considerations for DoD (Continued)

## Considerations Related to Fuel Price Protection for DoD (Continued)

### Arguments Against

- As a whole, DoD is not highly exposed to fuel price volatility:
  - Although DoD spent close to \$13B on fuel in FY10, these costs represent about 2% of the total DoD budget.
  - In response to fuel price increases, Congress has always authorized either supplemental funds or increased rates in the working capital funds to cover price increases.
  - Price protection does not protect against increased demands for larger quantities of fuel usage.
    - Response: Fuel costs comprise \$3.7B or 26% of USTRANSCOM's FY10 transportation working capital funds budget.
- There is a cost to protecting against fuel price volatility:
  - Administrative costs may increase to manage program.
    - Response: Very minor compared to costs of no protection.
- Unknown potential political cost:
  - Laws may have to change to give DoD authority to engage in certain forms of price protection.
    - Response: The Task Group recommends strategies that do not need new laws.

# Energy Price Protection Considerations for DoD (Continued)

## Considerations Related to Fuel Price Protection for DoD (Continued)

### Arguments Against (Continued)

- Government is already “price protected:”
  - OMB considers the Federal Government to be “price protected” on approximately 80% of its fuel costs because Defense fuel costs vary in direct proportion to income earned through the Interior Department’s gas and oil lease programs. As Defense fuel costs increase, Interior’s income increases, thereby, offsetting the higher Defense fuel cost.
    - Response: While government is “price protected,” DoD budget is not protected from wide price changes.
- Price protection is unattractive because it might:
  - Limit competition in the supplier base.
  - Negatively impact small business participation (30% of bulk fuel contracts currently awarded to small business).
  - Expose DLA to criticism if fuel prices decline below protected fuel costs.
    - Response: Task Group’s recommendations should increase competition by opening DoD to new classes of suppliers.

# **V. Recommendations**

# Recommendations

## **The following options were considered:**

1. Continue current DLA model with no price protection.
2. Directly utilize financial instruments to protect against price volatility.
3. Begin to utilize longer dated contracts and/or a “capped” price program for up to 10% of DoD's fuel needs.
4. Construct an RFP for a fuel price protection advisor or management services provider.
5. Use an intra-governmental price protection arrangement for up to 10% of DoD's fuel needs.

# Recommendations (Continued)

- The Task Group believes that continuing the current DLA model, with no modifications, would be inconsistent with public and private sector best practices.
  - Because of current and expected continuing high volatility in fuel prices, not to consider price protection options is to take unusual risk.
- The Task Group does not recommend that DoD directly utilize fuel price protection techniques that involve market based financial instruments (e.g. derivatives).
  - DLA and senior DoD officials have very little experience and a limited desire to use these techniques.
  - There is concern about Congressional reaction if these techniques do not provide perfect protection.

# Recommendations (Continued)

- The Task Group recommends that DoD consider implementing three low risk price protection techniques.
  1. DLA should request fuel price quotes from suppliers both with and without a “price adjustment” feature. A quote with this feature would not only contain a base price, but also would contain an economic adjustment in favor of the supplier if prices escalate from the base price (e.g., DoD would pay up to 5% more from the base price if prices rose) as well as an adjustment in favor of DoD if prices fell (e.g., DoD would get the benefit of prices falling up to perhaps 15% from the base price).
    - For the initial program, the subject fuel should be ordinary consumer fuel.
  2. DoD should solicit proposals for Fuel Price Risk Management services.
    - Provide DLA with expertise to have a full scope program designed by subject matter experts.
    - DoD can establish metrics and criteria to manage fuel price exposure. Multiple private sector firms would compete to advise on or manage to meet those criteria.



# Recommendations (Continued)

3. DoD should revisit the possibility of an intra-governmental price stability agreement with the Department of the Interior's Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE).
  - BOEMRE generates approximately \$4B per year in revenue through leasing both off-shore and on-shore energy resources.
  - Pricing for those resources fluctuate in direct proportion to indexed fuel prices.
  - OMB could manage this agreement during budget execution by transferring funds between Interior and Defense depending on which Department benefits from unanticipated price increases.
    - The transfers should be done using a formula that is determined ahead of time, and made known to Congress, so that there is no possibility of using the price protection approach to change the real resources available to either Department.
    - This “non-market” approach should allow DoD to realize many of the benefits of price protection. At the same time, intra-governmental price protection should avoid some practical and political disadvantages.

DEFENSE BUSINESS BOARD



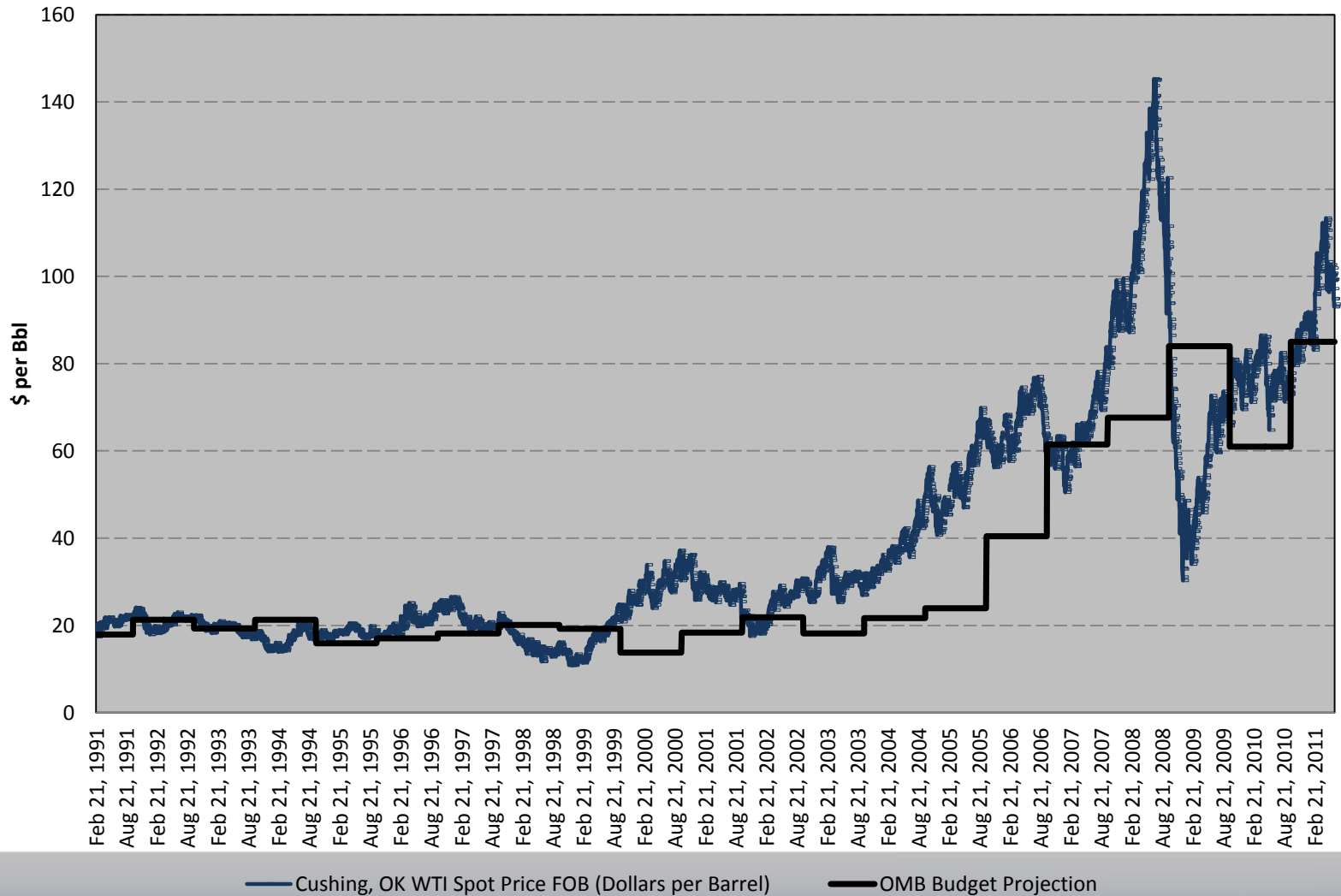
# Appendix

DEFENSE BUSINESS BOARD

*Business Excellence In Defense of the Nation*

# Appendix I

## West Texas Intermediate Crude Price vs OMB Budget Projection



Source: DLA Energy



# Appendix II

## Impact of OMB Budget/Actual Price Disparity

| FISCAL YEAR | Crude -<br>OMB BUDGET<br>PROJECTION<br>(\$/BARREL) | Crude -<br>ACTUAL<br>(\$/BARREL) | Crude -<br>ACTUAL as %<br>of OMB<br>BUDGET<br>PROJECTION | BARRELS OF<br>REFINED<br>PRODUCT<br>SOLD<br>(MILLIONS OF<br>BARRELS) | ESTIMATED<br>DOLLAR<br>IMPACT ON<br>REFINED<br>PRODUCT COST<br>(MILLIONS OF<br>DOLLARS) | WHAT HAPPENED   |
|-------------|--|----------------------------------|--|--|---|---|
| 1992        | \$ 21.32   | \$ 18.26                         | 86%  | 146.2  | \$ (608.78)   | Budget Year prices adjusted   |
| 1993        | \$ 19.30   | \$ 17.21                         | 89%  | 140.8  | \$ (395.00)   | Budget Year prices adjusted   |
| 1994        | \$ 21.28   | \$ 14.89                         | 70%  | 127.9  | \$ (1,313.23)   | Appropriation Act transferred (\$.6 billion)                              |
| 1995        | \$ 15.86   | \$ 16.99                         | 107%   | 122.0  | \$ 192.28   | Appropriation Act transferred \$.1 billion                                |
| 1996        | \$ 16.99   | \$ 19.04                         | 112%   | 120.1  | \$ 349.11   | Budget Year prices adjusted   |
| 1997        | \$ 18.16   | \$ 19.93                         | 110%   | 111.7  | \$ 272.77   | Budget Year prices adjusted   |
| 1998        | \$ 20.09   | \$ 13.77                         | 69%  | 112.3  | \$ (1,046.36)   | Supplemental Act transferred (\$.7 billion)                               |
| 1999        | \$ 19.19   | \$ 14.22                         | 74%  | 112.5  | \$ (833.35)   | Appropriation Act transferred (\$1.1 billion)                             |
| 2000        | \$ 13.77   | \$ 26.37                         | 191%   | 107.7  | \$ 1,721.76   | Supplemental Act transferred \$1.6 billion                                |
| 2001        | \$ 18.31   | \$ 24.83                         | 136%   | 110.3  | \$ 1,097.24   | Appropriation Act transferred (\$.8 billion)                              |
| 2002        | \$ 21.85   | \$ 21.50                         | 98%  | 132.3  | \$ (67.11)  | Budget Year prices adjusted   |
| 2003        | \$ 18.14   | \$ 27.26                         | 150%   | 142.5  | \$ 1,861.00   | Appropriation Act transferred \$1.1 billion                               |
| 2004        | \$ 21.69   | \$ 32.80                         | 151%   | 134.0  | \$ 2,286.85   | Appropriation Act transferred \$1.6 billion                               |
| 2005        | \$ 23.92   | \$ 45.86                         | 192%   | 132.8  | \$ 4,230.43   | Appropriation Act transferred \$1.1 billion; 2 standard price adjustments |
| 2006        | \$ 40.45   | \$ 66.02                         | 163%   | 130.7  | \$ 4,455.97   | 3 standard price adjustments  |
| 2007        | \$ 61.44   | \$ 64.62                         | 105%   | 132.5  | \$ 564.61   | 2 standard price adjustments  |
| 2008        | \$ 67.61   | \$ 107.67                        | 159%   | 132.5  | \$ 6,676.57   | 3 standard price adjustments  |
| 2009        | \$ 84.01   | \$ 57.23                         | 68%  | 129.0  | \$ (4,920.87)   | 5 standard price adjustments  |
| 2010        | \$ 60.98   | \$ 77.14                         | 126%   | 130.5  | \$ 2,807.21   | 3 standard price adjustments  |

-“Crude – OMB BUDGET PROJECTION” obtained from unpublished economic assumptions used in the President’s Budget

-“Crude - ACTUAL” calculated by fiscal year using monthly average crude prices reported by Energy Information Administration

-Refined product data obtained from DLA Energy

\*Beginning FY06, standard price adjustments are used by DLA Energy to capture pricing disparities between budgeted and actual product costs. Supplemental funding is applicable to the Services.